



STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

October 5, 1982

Mr. Ernest E. Burgh
General Manager, Operations
Utah Marblehead Lime Company
P. O. Box 488
Chicago Heights, Illinois 60411

RE: Permitting
Utah Marblehead Lime
ACT/045/003
Tooele County, Utah

Dear Mr. Burgh:

The Division of Oil, Gas and Mining has made a preliminary review of the Utah Marblehead Lime Company mine plan to determine compliance with the Utah Mined Land Reclamation Act of 1975, Title 40-8, Utah Code Annotated 1953, and the rules and regulations of same. This review was based on information submitted by Utah Marblehead Lime on Form MR-1, August 27, 1982 (received).

In this review, certain necessary information was found to be lacking. The additional information that is needed to complete our review is detailed on the following pages. When the additional information has been received, the total plan can be assessed for compliance with the regulations. Please use the rule numbers as referenced in this document in organizing your response.

If you have any questions, or would like to meet with members of the review team, please contact me or Susan Linner of my staff.

Sincerely,

JAMES W. SMITH, JR.
COORDINATOR OF MINED
LAND DEVELOPMENT

JWS/SCL:btb

Enclosure

cc: Grant Reed, Utah Marblehead Lime, Grantsville
Tom Portle, DOGM
Cy Young, DOGM
Pamela Grubaugh-Littig, DOGM

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

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REVIEW OF MINING AND RECLAMATION PLAN

Utah Marblehead Lime Company
ACT/045/003, Tooele County, Utah

Rule M-3(1)(a)-(d) and M-6

Applicant should submit a topographic map of sufficient scale to show details of proposed operations (about 1" = 500'). This should include both the quarry and the plant. The map should show more detail in the plant area, including location and size of the screenings pile, waste pile, iron additive storage, sediment pond, drainage ditches, berms, location of any power lines, roads, culverts, etc.

The legal description under Item #4 should include; Section 27, Township 2 North, Range 9 West where there is some road disturbance and Betsy Claim #1, Sections 1 and 2, Township 1 North, Range 9 West where the plant disturbance occurs, and any other sections of proposed disturbance.

Item #18 in Form MR-1 states that cross-sections of the haulage road are attached to the plan. No such cross-sections were received, they should be supplied along with profiles of the haulage road showing the locations of stream crossings and culverts.

Rule M-3(1)(e)

Applicant should supply a map showing drainage patterns in and around the quarry site and include the location of any constructed drainways or natural waterways used for drainage.

Rule M-3(1)(f)

Show the general location of test borings or core holes and the depth of any water-bearing strata drilled. Include depth and thickness of plant support material, if available.

Under Item #22, discuss plugging program for exploratory core holes.

Rule M-3(1)(g)

Show the location for storage of soil material and areas used for disposal of waste rock and overburden.

Item #21 shows no stockpiling of overburden. What is done with the chert which overlies the dolomite? The photograph attached to the plan shows a screenings pile and a waste pile. Discuss their toxicity, basis for this determination, method of disposal, means of containment and stability analysis.

M-3(2)(C)(1)
M-10(1)
M-10(12)
M-10(14)

The applicant must propose a method for providing a suitable growth medium to support revegetation activities required by law. If the applicant wishes to claim that revegetation is not possible, this will have to be proved. Such a provision exists under Rule M-10(12)(3). However, based on a site visit and observation of the existing vegetation, it would not appear that this would be justifiable.

Since the area is a pre-Law disturbance, it would appear that existing surficial materials would be used as a media for reclamation as opposed to importing surficial material. In order to utilize this approach, various soil treatments will need to be employed. A proposal to this effect is necessary from the applicant. Methods to be addressed would include soil scarification (disking, harrowing, chisel plowing) to break up the surface compacted layer. This would be followed with soil fertility amendments as per the results of soil analysis.

Laboratory tests will aid in detecting any soil physical or chemical conditions which may be detrimental to plant growth and to provide any nutrients shown to be deficient. These tests should include, but not be limited to, soil texture, pH, electrical conductivity, SAR (Sodium Absorbition Ratio), available nitrogen, available phosphorus (percent or ppm), available potassium, soluble calcium, magnesium and sodium (expressed as meq/100 g).

Please describe soils in adjacent, undisturbed areas.

Rule M-3(2)(3)
M-10(12)

It is not clear how the estimate of existing vegetation cover (question #20) was determined. If this was not done by "professionally accepted methods," such a study will need to be undertaken in order to determine a standard for successful revegetation. BLM surveys done on surrounding areas may be acceptable.

All disturbed areas must be revegetated, unless it is shown through test plots that they cannot be revegetated. Therefore, a complete revegetation plan, including seedbed preparation methods, time of year of seeding, seeding methods, a revegetation species list appropriate to the postmining land-use (given in pounds of pure live seed per acre), and use of mulching (kind and amount per acre), fertilization and irrigation should be submitted. Methods and a timetable for monitoring revegetated areas should be discussed, along with procedures to determine success of revegetation (i.e., comparison of

revegetated areas with the established success standard). If test plots will be used, a discussion of how they will be set up, what methods will be tested, and monitoring methods should be included. Applicant should discuss any measures that will be necessary to keep domestic and wild animals from revegetated areas or test plots (i.e., fencing or other means of control).

Rule M-3(2)(f)

A detailed timetable for the accomplishment of each major step in the reclamation plan, after the operation is shut down, must be submitted.

Rule M-10(4)

What does the 1/4 inch waste material consist of and how will this area be addressed with regard to reclamation? Will this material be hauled away or will it be stabilized and reclaimed?

Rule M-10(5)

The quarry is stabilized in practice by the use of terraces. This has not been addressed in the MRP. Please provide a narrative on this approach and a cross-section depicting the methods employed.

The applicant states that all surface and mineral ownership is private. This is not correct. Please submit a map delineating surface and mineral ownership accurately.

Rule M-10(2)

Warning signs should be placed at all points where access to the mining of plant area may be gained. Submit a description including the nature, wording and durability of such signs.

In MR-1, page 7, the applicant indicates that all the trash and extraneous debris will be removed from the site. To where? Will all facilities be dismantled and hauled away? Please describe disposal plans.

Rule M-5

The applicant must submit detailed, accurate cost estimates for all reclamation procedures. As indicated above, all disturbed areas must be reclaimed unless a variance is granted. No such variances were requested on the MR-1 form submitted. Therefore, there are approximately 180 acres of land to be reclaimed upon site abandonment (30 acres for roads and 149 for the plant site). Bonding figures should reflect this acreage. All of the following information should be included:

A. Clean-up:

Removal of structures and equipment.

1. Size of structures, type of equipment used to remove.
2. Will structures be removed from the site? Example: Crushers (primary and secondary); kilns; shops; offices; conveyor; product tanks.
3. Removal of trash and debris--general clean-up of area. Where will it be hauled?

Detailed cost estimates with type of material moved, equipment used and labor are needed.

B. Regrading and Recontouring

1. Backfilling and grading. Type of material? Volume? Equipment used? Acres?
2. Contouring. Volume? Equipment? Acres?

C. Stabilization

1. Soil preparation, fertilizing. How many acres? Type of equipment?
2. Seeding and planting. Seed list? Drilled or broadcast? Fertilizer? Acres? Irrigation?

D. Labor.

E. Safety.

F. Monitoring. It is applicable. Need for three years.

Enclosed with this package for your further information is a memorandum that DOGM employees use to evaluate bond estimates.



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4241 State Office Building - Salt Lake City, UT 84114 - 801-533-5771

MEMORANDUM

TO: Mining Staff
FROM: Pam Grubaugh-Littig, Reclamation Engineer *pgl*
SUBJECT: Bond Estimating Criteria
DATE: September 10, 1982

The bond estimates for mine operations need more details. This estimate should be a realistic estimate of the cost to the Division of Oil, Gas and Mining if it had to contract the reclamation.

Please provide detailed cost estimates for the following:

1. Sealing of shafts and portals.
2. Facilities demolition and removal (roads, railroads, buildings, foundations, power lines, etc.). Salvage values cannot be used to offset the bond requirements.
3. Removal of trash and debris.
4. Backfilling and grading.
5. Contouring.
6. Seeding, seedbed preparation, irrigation, fertilization.
7. Monitoring.

The cost detail should include:

1. Type of material to be moved (topsoil, overburden, concrete, rails ties, etc.).

MEMORANDUM

September 10, 1982

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2. The calculation of the volume to be moved and haulage distance.
3. The type of equipment to be used (caterpillar D-9 dozer, 637D scraper, etc.)
4. Operator cost.
5. Field supervision cost.
6. Cost for materials used (seeds, fertilizers, etc.).

Reclamation costs should be tabulated according to tasks (sealing, backfilling, seeding, etc.).

An example of the estimate could be:

Description	Quantity	Unit	Unit Price	Man Hours		Equipment		Total
				Quantity	Unit Price	Quantity	Unit Price	
Topsoil	X	cy	\$/cy	y hrs	\$/hr	Z	\$/hr	

The total number acres of affected area should be given. An outline of the reclamation tasks to be performed would be helpful.

PG-L/btb